

## **REMARKS**

In the Office Action: (1) claims 16 and 37-41 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention; (2) claims 1 and 17 were rejected under obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,324,168 to Richardson (hereinafter “Richardson”); (3) claims 9 and 28 were rejected under obviousness-type double patenting as being unpatentable over claim 8 of Richardson; and claims 16 and 37-41 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,737,316 to Lee (hereinafter “Lee”).

As a formal matter, Applicant previously canceled claims 1-16 on page 1 of the Preliminary Amendment filed concurrently with the present application on May 31, 2001 (hereinafter “the Preliminary Amendment”). No claims have been canceled or added in this Amendment. Independent claim 37 has been amended simply to improve its form. No new matter has been introduced. Therefore, claims 17-41 are currently pending in the application. Applicant respectfully requests favorable reconsideration of claims 17-41 for the reasons discussed below.

### **Rejection of Independent Claims 17 and 28 under Obviousness-Type Double Patenting**

On pages 2 and 3 of the Office Action, the Examiner rejected independent claims 17 and 28 under the doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 8 of Richardson, respectively. Concurrently with this Amendment, Applicant has filed an appropriate terminal disclaimer in compliance with 37 C.F.R. 1.321(c) to overcome the double patenting rejections of independent claims 17 and 28. The Richardson patent and the present application are commonly owned. Therefore, Applicant respectfully requests that the Examiner withdraw the double-patenting rejections of independent claims 17 and 28, which are in condition for allowance.

### **Rejection of Claims 37-41 under 35 U.S.C. §112, Second Paragraph**

On page 2 of the Office Action, the Examiner rejected independent claim 37 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner also rejected claims 38-41 because they depend from claim 37 (page 2 of the Office Action). In rejecting independent claim 37, the Examiner asserts that the claim limitation of

“removing a contribution of a real component of the resistance of the link” does not clearly state what is meant (page 2). Applicant has amended independent claim 37 to further articulate what is meant by this claim limitation. As amended, claim 37 recites:

37. A method for analyzing a network link in a computer network, comprising:

- generating a predetermined signal on the network link;
- detecting a response of the link to the predetermined signal, said response including a resistance response;
- filtering the response of the link by removing a contribution of a real component of the resistance response of the link; and
- displaying the filtered data to assist in the identification of impedance problems on the link.

Applicant respectfully submits that one of ordinary skill in the art would readily understand what is meant by removing a contribution of a real component of the resistance response of the link. Moreover, the specification clearly describes removing a real component of the resistance response of the link:

As shown in steps 532 and 534, further processing is optionally performed to identify impedance problems with the network cabling. First, a resistance correction must be performed [to] factor out the contribution of the real portion of the cable’s resistance to the response in step 532. Since the real resistance has no frequency dependence, by definition, it will not distort any signals transmitted on the line other than causing attenuation.

Fig. 8 shows an exemplary cable impedance as a function of time delay. Plot 810 is the total, real and imaginary, impedance as a function of time delay. Plot 812 represents the response that is dictated by only the imaginary portion, *i.e.*, reactance, of the cable’s impedance. (Page 13, lines 5-14 of the specification.)

In other words, Plot 812 of Figure 8 shows an impedance response with the real impedance response removed. One of ordinary skill in the art would understand what is meant by the real component of a resistance response of a link and how to remove the real component from the resistance response. Therefore, Applicant respectfully requests that the Examiner withdraw the rejections of independent claim 37 and its dependent claims (claims 38-41).

#### **Rejection of Claims 37-41 under 35 U.S.C. §103(a)**

On pages 3-4 of the Office Action, the Examiner rejected claims 37-41 under 35 U.S.C. §103(a) as being obvious over Lee. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Applicant

respectfully submits that Lee does not teach or suggest every claim limitation recited in claims 37-41. Therefore, for the reasons discussed below, the Office Action does not establish a *prima facie* case of obviousness against claims 37-41.

#### **A. Independent Claim 37**

With respect to independent claim 37, Lee does not teach or suggest the claim limitation of removing a contribution of a real component of the resistance response of the link. The Examiner asserts that Figure 26 and column 9, lines 42-65 of Lee teach a low pass filter that senses the contents of a reflected signal to allow a low frequency signal to pass through the filter (page 4 of the Office Action). However, a low pass filter allowing passage of low frequency signals is entirely different from the claim limitation of removing a contribution of a real component of the resistance response of a link. Lee does not contain any teaching or suggestion of the low pass filter being used in connection with a real component of a resistance response. Lee does not even mention the terms “real” or “resistance.”

Moreover, Applicant’s specification discloses that real resistance has no frequency dependence (page 13, lines 8-10). Because a low pass filter functions by filtering portions of a signal based on frequency, the low pass filter disclosed in Lee is in no way associated with removing the real component of the resistance response of a link. Therefore, Lee does not teach or suggest this claim limitation as recited in independent claim 37, and it is respectfully submitted that claim 37, as amended, is in condition for allowance.

#### **B. Claims 38-41**

Claims 38-41 are in condition for allowance because of their dependency from claim 37. Nevertheless, claims 38-41 are independently patentable over the prior art of record. Merely by way of example, claims 38 and 39 recite the claim limitation of a non-terminator location, which is not taught or suggested by Lee. More specifically, claim 38 recites the claim limitation of the detection of the response of the link to the predetermined signal occurring at a non-terminator location on the network link. Similarly, claim 39 recites the claim limitation of the generation of the predetermined signal on the network link occurring at a non-terminator location on the network link. In rejecting claims 38 and 39, the Examiner asserts that Lee’s network module 2 is a non-terminator location (page 4 of the Office Action). Applicant respectfully disagrees because the network module 2 taught by Lee is a network terminator (e.g., a physical layer network card) in a node (e.g., work station 1 or concentrator 10) at the end of a link 8 in a star network topology (see Figures 4 and 5 of Lee). Thus, there is no teaching in Lee of the network module 2 transmitting or detecting signals at

a non-terminator location of a link. To the contrary, Lee's teachings are limited to transmitting and measuring a signal at an end (i.e., terminator) of a link (e.g., see Abstract, col. 10, lines 58-60; col. 11, lines 29-33 of Lee). Thus, Lee does not teach or suggest the claim limitation of a non-terminator location as recited in dependent claims 38 and 39, which are therefore in condition for allowance.

**Dependent Claims 18-27 and 29-36**

Although the Office Action Summary states that claims 1-41 stand rejected, the Office Action fails to state any grounds or support for a rejection of dependent claims 18-27 and 29-36. Therefore, Applicant respectfully submits that these claims are in condition for allowance and should be passed to issuance. If for some reason, the Examiner continues to reject any of the claims 18-27 and 29-36, Applicant respectfully requests that the Examiner expressly provide grounds and support for each rejection so that Applicant may know how to respond.

**CONCLUSION**

In view of the foregoing, it is respectfully submitted that the pending claims 17-41 are in condition for allowance. It is respectfully submitted that any fees associated with this paper are identified in the accompanying transmittal. Any additional fees due with respect to this paper may be charged to account number 18-0013 in the name of Rader, Fishman and Grauer PLLC.

Respectfully submitted,

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